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SUBARU BELL 412EPX

Issue 313

May 2022

Cayman Islands Flyer Hungary: Not what it seems A Gathering of Eagles War wound instructions

Next generation 412 from Subaru

LAW ENFORCEMENT PAVCON EUROPE

VIENNA: Only one month to go and the final details are now being set in stone for an interesting, informative police aviation gathering and exhibition. As happened the last time there was a physical gathering – way back in May 2019 – there have been some unpredicted 'developments' to get the skin tingling. Last time it was a last-minute change in venue, this time there has been a change in the line-up of major sponsors.



LEONARDO At the forefront in the public perception by name is of course Leonardo but more than equal is the effort put in by ElySight Ball for nardo but more than equal is the effort put in by FlySight. Bell, for many years the primary sponsor, broke the connection by 'letting go' some 70 senior managers last month. One of those managers was the prime driver of Bell's involvement with the PAvCon Europe event.

> Let us not lose sight of the contribution of Airborne Technologies. They are turning over their site to PAvCon Europe for the event to be held and it must disrupt their day to day work. There is limited space for more exhibitors, letting them join Hensoldt who although

not event sponsors as such have take four spaces to promote their brand-Optronics, Avionics and Radar. The involvement of a broad segment of European police aviation seems assured - subject to them turning up on the day of course!

Likely attendees a month off the opening are representatives from the police in Austria, The Belgium, Germany, Malta, Netherlands, Spain, Slovenian Police, Slovak Government Flight Service, the Czech Police Aviation Department and the air police in Romania. There may be others.

Checkout the event web site at www.pavconeurope.eu to see the latest information and floor plan.

CAYMAN ISLANDS

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RCIPS: The February 2019 edition of Police Aviation News included a story about a young Cayman Islands Auxiliary Darren Mclean (right) being put forward for pilot training. Darren was then a TFO with the unit, but he had aspirations to be a pilot.

The story was in the wake of an announcement that the unit was to acquire a new H145 helicopter, and that the country wished to avoid forever being reliant upon ex-pat pilots, mainly from Britain.

He began a secondment to a helicopter pilot training programme with National Helicopters in Trinidad and Tobago that year having started flying to gain a CPL years earlier.

In June 2017 Darren joined the RCIPS as an Auxiliary Constable and underwent basic training for that role. In July 2017, he joined the RCIPS Air Operations Unit and began a ten-week course to become a certified Tactical Flight Officer as one of the police helicopter crew.

The latest stage in his journey to realising his dream in the righthand seat of the RCIPS H145 is carried is a recently filmed You Tube item by the local Cayman Compass newspaper. Although the Cayman Islands have pretty much been locked down throughout the COVID period the training of Darren Mclean continued and he is that much closer to meeting his piloting aspirations:



COVER IMAGE: The success of the latest variant of the venerable Bell 412 has been somewhat over shadowed by events. Launched in 2019 (it is seen here at the Singapore Air Show) it brought to market a long overdue strengthened Main Gear Box from Subaru but that message was largely lost to the Pandemic. Now it is being noticed more and the latest sale has been predicted to San Diego Fire in California.

Police Aviation News is published monthly by POLICE AVIATION RESEARCH, 7 Windmill Close, Honey Lane, Waltham Abbey, Essex EN9 3BQ UK. Contacts: Cell: +44 7778 296650 Skype: BrynElliott or +44 20 8144 1914 E-mail: editor@policeaviationnews.com and policeaviation@hotmail.com

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HUNGARY

AIR POLICE: Last month MD Helicopters Inc posted on Twitter "Congratulations to the Hungary Air Police for flying more than 20,000 hours in their MD900. What an accomplishment for this aircraft to complete many missions."

Editor: The post included an image of MD902 R907 c/n 0078, the former G -YPOL, the West Yorkshire Police airframe that joined the Air Police from NPAS early in 2017. It is unclear from the post whether this is celebrating a fleet total of 20,000 hours in five years or, more likely, the fact that 0078 reach its own 20,000. Always the best and most reliable airframe of the type it already had over 15,000 hours on it when it left the UK. The Air Police have operated ten examples of the MD900, acquired from Germany and the UK, since 2016 but there are few reports of the type in operation in Hungary.



Hungary

Congratulations to the Hungary Air

Police for flying more than 20,000

accomplishment for this aircraft to complete many missions.

hours in their MD 900. What an

MD Helicopters, Inc.

INDIA

NATIONAL: The Air Courier Service for Central Armed Police Forces (CAPF), Intelligence Bureau and National Disaster Response Force (NDRF) personnel resumed from April 23. This transport arrangement is the return of a benefit for them joining units or returning on leave from various areas of India suffering from unrest.

The service offers means for the police and military directly involved to pass over areas of disquiet. There have been instances of road buses undertaking transport being attacked with high loss of life. One such, resulting in the death of 44 members of the CRPF, occurred in February 2019 in Kashmir when the air service was suspended. The paramilitary units mainly affected include the Border Security Force, Central Reserve Police Force, Central Industrial Security Force and the Indo-Tibetan Border Police.

The service is provided by InterGlobe Aviation Limited (Indigo) Airlines using all approved routes. The Indian low-cost airline headquartered in Gurgaon, Haryana, India. It is the largest airline in India by passengers carried and fleet size, with a 53.5% domestic market share as of October 2021.



88%

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UNITED KINGDOM

NPAS NORTHEAST: For Northeast read a couple of EC135 helicopters and the four Vulcanair P68R fixed wing based at Doncaster Sheffield Airport (aka Robin Hood Airport).

Recent social media postings from Doncaster tell us that after just two weeks of returning to 'National Ops' at the start of April the fixed wing fleet had managed to deploy to 21 of the force areas. The average time from receiving a high priority call to being on scene is claimed to be 10 minutes 30 seconds.

Ed: The creditably short response times suggest that responses are either being carefully managed by the control room or that operations remain mainly in the north. No matter how much the numbers may have been manipulated it is good to see that some part of the NPAS fleet is actually managing to arrive on scene in under 20 minutes. This of course being the fixed wing that senior officers were in despair of and intent on cancelling just months ago. There have been several reports of the P68 aircraft assisting considerable distances from Doncaster – including over London and down in the Southwest. It makes one wonder how they previously survived without fixed wing!

Meanwhile no news on tenders, contracts or which police force is supposed to now be in charge of NPAS. It was in mid-June last year that the newly elected Mayor of West Yorkshire Tracey Brabin gave notice that West Yorkshire would divest itself of NPAS in one year so there are several weeks left before that becomes applicable.

UNITED STATES

CALIFORNIA: The more aircraft types, and subtypes and operation has the higher the cost of maintaining pilot proficiency and the increased chance of having a pilot and aircraft available but neither of them compatible. From time to time it becomes necessary to have a clear out.

Currently the San Diego County Sheriff's office has ten rotary wing craft of four types – variants of the Bell 407 and MD500 – assigned to the patrol role. Last month three were placed on a government website for sale by the end of April. At this link you

Those in the sale were a 2007 Bell 407 N958TR c/n 53770, MD530F N131TZ and an MD500D N5108E c/n 81-1075D. In busy bidding, the first attracted a final bid around \$1.4M, the second nearly \$1M, where the 500D made a little over half a million.

Overall, the current fleet consists of a 500D model, three 530F model, as well as three different 407 models. It is the earlier analogue instrumented model they are disposing of. In addition, there are significant operating differences between the Bell and MD models. In the Bell 407 the plot flies in the right seat where in the MD the pilot flies from the right seat and the TFO sits in the left seat operating the FLIR Star SAFIRE 230-HD system.

In the answers to questions from potential auction bidders SDCSO have indicated that they are "... attempting to purchase an additional 407 GXi in order to have a uniform fleet of helicopters for patrol."

Once they have sold these three, the remaining 'patrol' fleet is then a B407GX, four B407GXi and two MD530F. It would appear that medium term plans might be to clear the remaining MDs and the 407GX to evolve to an all-digital 407 patrol fleet.

Aerial Support to Regional Enforcement Agencies (ASTREA) is the aviation unit of the SDCSO based at Gillespie Field in El Cajon. They also operate three Bell 205 Huey N449BC on rescue and fire duties. They are equipped with 375-gallon belly tanks and hoists and work with Cal Fire in the rescue role. [Parapex/ASTREA]



N412



One of the largest gatherings of US airborne emergence services took place late last month (27/4) under the auspices of the Pasadena Police Department. The gathering was in the grounds of the Rose Bowl Stadium in Pasadena, in the Los Angeles Metro Area.

The epic fly in was mainly of law enforcement airframes but in among them were air ambulance and fire helicopters as well as the demonstrator of the Subaru Bell 412 N412EX.

It is difficult to say how many different machines turned up but among the units sending at least one helicopter were Fontana, Fresno, Kern, LAPD, LA County Fire, LA Fire, LACS, Long Beach, Ontario, Pasadena, Pomona, Riverside, Sacramento, San Diego County, US Customs & Border Protection, Ventura. Thank you to Matt Hartmann and others for posting the 50 plus images of this training and networking event online.



Fleet Enlargement

One of the units at the Rose Bowl gathering, Fontana Police Department located in the San Bernardino Valley is spending \$2.8M in American Rescue Plan funds on a previously owned helicopter to bolster public safety fire and emergency medical services.

Owned by San Diego-based Shier Aviation, the model AS350B2 (A-Star) helicopter is already law enforcement role equipped and will join two Robinson R66 helicopters in the city's fleet. Fontana has exclusively operated Robinson's since forming with an R44 in 2003.

The move to a larger helicopter appears wholly related to its firefighting and load lifting capability. Fontana needs a helicopter capable of carrying a "Bambi Bucket," or 216 gallons of water weighing 2,100 pounds, and the AS350B2 can. City leaders approved the purchase on April 12, using funds it received through the federal coronavirus aid package. Delivery was expected to be immediate.

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Hitherto Fontana's Air Support Unit has primarily been focussed on crime patrols and aiding officers on the street. In 2018 the FAA approved Robinson's R66 cargo hook installation for external loads up to 1200 lb. This saw the R66's maximum gross weight increases from 2700 lb to 2900 lb. The used AStar offers double that capacity and preserves the Robinson's for the primary law enforcement role.

Not in my back yard

Los Angeles County Sheriff's Department [LACS] have been stopped from building a helicopter pad on land owned by Southern California Gas (SoCalGas) without permission. After an incident in early 2021 where protesters arrived at the home of Sheriff Alex Villanueva the LASD decided that a landing site was needed close to his La Habra Heights home to enable him to be taken from the address quickly.

The error appears to have arisen after a subsequent verbal conversation was not formally put on paper and agreed with the utility company. A conversation between the Major Crimes Bureau and one SoCal-Gas worker was taken as sufficient to start the work to flatten the area. The scenario was worsened because the area was residential.

As a result, SoCalGas attorneys sent a cease-and-desist letter to the Sheriff's Department, demanded they stop all work on their property and accusing the department of trespassing.

A subsequent enquiry failed to find anyone at the utility company who had agreed the construction and in addition it seems that LACS failed to consult with any other agency that would govern helicopter flights before starting work on the pad. They would have been required to contact the L.A. County Department of Public Works' Aviation Division, as well as Caltrans, to inform them that helicopter flights could be landing in the middle of a residential neighbourhood. [Tribune]



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FLORIDA: In New Port Richey, Gulf Coast Florida and north of Tampa Bay Airbox Systems USA spent a weekend cooperating with air and ground units in providing a common operating picture for command, combining the use of asset tracking with live full motion video, geofencing, and easy to use Annotations. This allowed for users on the edge to be more informed during an event with more than 100,000 attendees complicated by the number of public safety agencies involved. Airbox Systems US are based nearby in St Petersburg.



The air asset was the fiftyyear-old Bell OH-58A operated by the Pasco County Sheriff's Office, N316LC. It may have old bones and some relatively short inspection times, but the helicopter carries a new camera and searchlight acquired from Trakka.



7

Fleet renewal

The Pinellas County Sheriff's Office based in Clearwater on the Gulf Coast is shortly expected to take delivery of a new Airbus Helicopters H125.

The new delivery from the completion centre at Metro Aviation is expected to be late this month or early next.

AIR AMBULANCE

TRANSPORT AGREEMENT: All five University Hospitals in Finland have agreed to implement the new isolation and transport system. With EpiShuttle's at all hospitals, Finland stands better prepared facing new pandemics or chemical and nuclear threats.

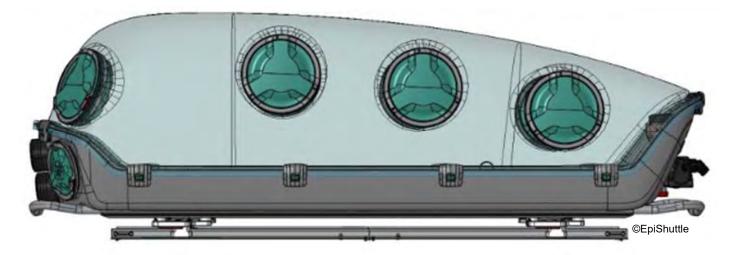
As one of the actions to increase Finland's preparedness, the five university hospital districts jointly procured the Norwegian designed EpiShuttle, an invention that isolates a contagious patient while being treated.

The procurement of the nine EpiShuttle's are financed by the Government and steered by the Ministry of Social Affairs and Health. The new equipment will be used in all the areas that the five University Hospitals cover – ready for the next pandemic

Back in 2018, the WHO made a list of 10 diseases with the potential to cause a public health emergency. On that list was Disease X, a pathogen currently unknown. As it turns out, Disease X was the coronavirus. However, the threat of yet another new pathogen emerging, has never been greater.

The UN Humanitarian Response Depot (UNHRD) holds six EpiShuttle's, for safe transport of contagious patients. Congo was the first place they dispatched, during the Ebola outbreak. UNHRD offers storage at no cost at six strategically located locations near major ports and airports.

EpiShuttle's are used by WHO as well as first responders in Germany, Belgium, Denmark, Peru, Ireland, Greece, Norway, and the UK. Also, national air forces like the British, Australian, Canadian, Danish, Norwegian and others are equipped with EpiShuttle's. In the private sector, EpiShuttle's are a common sight amongst companies like FAI air ambulance, Air Alliance Medflight, DRF Luftrettung, Keewatin Air, Luxembourg Air Rescue, Loganair and others



Editor: In a further release the manufacturers highlighted how the EpiShuttle can feature in an updated civil defence scenario. As has been made clear in recent weeks – despite President Putin's rantings – NATO and the EU were not thinking Russia and threat at all, and they had become lazy with their war and defence planning. Things are now slowly changing.

EpiShutile see their product featuring in a CBRNe incident, like a terrorist bomb, a missile sent by a rogue state, or the use of chemical weapons by foreign nation intelligence. In any CBRNe incident, first responders are at high risk. In many cases, emergency services are likely to be first in contact with an exposure, offering care before any threat is identified. Ordinary equipment like rubber gloves provide poor protection against nerve agents, and any rescue attempt can cause serious injuries.

Contrary to the Chemical Weapons Convention and international law, we have in recent years witnessed Russian use of chemical weapons and as Salisbury and more war related incidents across the world have shown it is the emergency services that get to meet the threat first. It will be the same if the prospect of nuclear war increases unexpectedly.

Russia's invasion of Ukraine, and the threat of CBRN weapons in a conflict has led to a reassessment of fallout shelters and a rush on anti-radiation potassium iodide pills. The renewed European countries fear of a nuclear catastrophe has governments reinventing civil defence, and not without reason. If it all goes wrong the Ukrainian Chernobyl disaster of 1986 will seem a non-event.

8

GERMANY

At the end of March 2020, DRF Luftrettung provided another helicopter at Karlsruhe / Baden-Baden Airport to provide support in the corona pandemic in addition to the public system. Christoph 111's operational readiness ends today.

That arrangement has now come to an end and the crew of Christoph 111 has left after two years of contributing to the support of medical care with the additional intensive care transport helicopter from the Operation Centre of the DRF Luftrettung.

The very beginning of the deployment of Christoph 111 was something special. It was to be made available specifically for intensive care transport during the pandemic. In view of the critical bottlenecks in the inpatient care of COVID-19 patients that were emerging at the time, the DRF Luftrettung managed to organize a helicopter, medical equipment, the necessary infrastructure and a first crew within just 36 hours. The support of the helicopter and its crew was immediately required – also across borders. In neighbouring Alsace in particular, the help was quickly accepted in the first few weeks in order to transport patients from overburdened clinics in France over longer distances and thus improve the patients' chances of recovery.

IRELAND

CORK: A new tender has been issued to establish a single provider for a Helicopter Emergency Medical Service (HEMS) based within the county of Cork to primarily serve the Southwest of Ireland. The provider is to provide rotary wing transport from its designated base and be capable of delivery of service to any location within the state.

The tender stipulates an EASA AOC and reminds applicants that UK left EU last year. Such details could present a future issue for the current contractors, Sloane Helicopters based in the UK. They provide Agusta helicopters to the existing operation. Using Irish registered helicopters for the contract may ultimately resolve difficulties for Sloane but others with fewer difficulties may find the contract attractive.





UNITED KINGDOM

CHILDREN'S: Towards the end of last year, a seven-year aircraft fleet and services contract between the Children's Air Ambulance (TCAA) and Specialist Aviation Services (SAS) was terminated.

In March this year an important milestone in the aircraft fleet replacement project for the Children's Air Ambulance was achieved with the relaunch of the service after the short, enforced break.

Last years' response to the children's charity being asked to pay additional costs, for two aircraft, which would have doubled the monthly expenditure for the remaining four years of the contract. This would have amounted to more than £15M additional expenditure. Unable to find a solution TCAA pulled the plug on the SAS contract on 29 September 2021.

While working with SAS, the charity developed contingency plans that brought Northampton based Sloane Helicopters Limited forward to provide the TCAA with ongoing services. The result was that two replacement AW169 have been ordered from Leonardo and the first has now arrived in Oxford where it is having a specialist clinical interior fitted, with availability to TCAA from this summer. Meanwhile the charity is using an interim aircraft. During the Summer the first AW169 will be brought online, replacing the interim aircraft, and this will be quickly followed by a second AW169, with a new clinical interior, to bring the fleet to full capacity.

The introduction of the two-replacement aircraft will bring an end to a long, 18-month project and fulfils the charity's aim of not only continuing but also improving the world-class service it provides. These future services will be available to NHS partners for more hours in the day, every day, and will utilise better equipment to benefit young patients.

To date the charity has carried out nearly 600 potentially lifesaving missions. It receives no regular funding from government, being reliant entirely on voluntary donations to raise the £3,500 needed for every mission.

Ed: Late last year several air ambulance charities faced similar proposals from long established operators to raise fees and each took their own remedial action. One other charity that sought a new supplier was Lincs & Notts AA.

LONDON/UKRAINE: In a potentially unique move the London Air Ambulance has compiled a series of videos for social media that provide basic information of first aid tips for combatants.

A coalition of UK medical charities and senior trauma doctors worked with the London Air Ambulance at their east London helipad to film and release a series of training videos to help civilians save lives in the war in Ukraine.

London's Air Ambulance Charity, Street Doctors and citizen AID provided advice and support to create the videos alongside a group of senior doctors and emergency trauma specialists, including Prof David Lockey, Sir Keith Porter, Dr Phil Ward and Dr David McAroe.

The videos are narrated by Ukrainian TV presenter and activist Timur Miroshnychenko. They have been translated into Ukrainian and Russian and an English version has been narrated by TV presenter and historian, Dan Snow.

The videos, produced by film and production company Objekt, were filmed on the rooftop helipad base and show doctors and paramedics demonstrating techniques to treat injuries of the kind that will be currently found on the streets of Ukraine.



Using simple techniques and readily available materials, the videos demonstrate what to do if someone is bleeding from a gunshot or sharp object such as shrapnel, if someone has lost a limb, or sustained a eye

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also videos on how to stop serious bleeding by creating a tourniquet and how to put someone in the recovery position if they are unconscious.

All videos can be downloaded at <u>civilianfirstaid.org</u> and are also available through Civilian First Aid social channels, including Facebook, Instagram, Twitter and Telegram.

NORTHWEST: Even as reports emerged late in March that Babcock was changing hands Babcock and North West Air Ambulance Charity (NWAA) announced a significant new multi-year contract renewing the supply of helicopters and pilots to the charity.

The new contract, awarded following a competitive procurement process, supported by Aeroptimo, has seen Babcock selected to continue as NWAA's exclusive aviation partner for at least the next seven years. Babcock will provide NWAA with aviation support including advanced helicopters equipped with hospital-grade medical technology, ground support, engineering and pilots. Options for an additional three years would see Babcock continue as NWAA's sole aviation partner to 2031.

The charity has been flying life-saving missions across the Northwest of England since 1999 and has partnered with Babcock since 2000. Today Babcock operates three specialist EC135 helicopters (G-NWAA, G -NWEM and G-NWAE) on behalf of the charity. They are based at Blackpool Airport and Manchester City Airport offering cover to areas of Cheshire, Cumbria, Lancashire, Greater Manchester and Merseyside within 25 minutes flight time.



UNITED STATES

MAINE: Air ambulance provider LifeFlight of Maine has brought its aviation management services inhouse, after ending its contract with Dallas, Texas, based Seven Bar Aviation due to rapidly increasing costs.

Commencing last month, the non-profit provider managed its operations using its own staff working under its own FAA certification.

Taking some three years to prepare the change could result in savings of up to \$887,000 per year.

TEXAS: In Brenham, Texas, the Washington County Commissioners recently voted to switch to a new air medical provider to run their helicopter, to create more availability with the helicopter's services. The county terminated the existing arrangement with REACH Air Medical and signed a new one with Metro Aviation Inc.

Washington County EMS Director Kevin Deramus said they want to have the helicopter available more often and with less out-of-service time. Last year it averaged at about 77% of availability, they expect the new company will keep that percentage higher. Typical claims have suggested as high as 98%.

Where the old agreement was costing about \$135,000 a year for a subscription to Air Med Care Network, the county expects a future annual cost of about \$3M when Metro Aviation takes over operations on June 27.

FIRE CYPRUS

The efforts of the Forestry Department to lease two helicopters for firefighting this year has been unsuccessful so far since both tender procedures have been cancelled.

During the past two years, the Republic of Cyprus had been leasing two Russian Kamov helicopters. Now, due to the EU sanctions against Russia, this option is no longer available. The EASA certifications have been withdrawn.

The Department continues to seek alternative helicopters for the hot summer months, but the number of grounded Kamov Ka-32s across Europe are highlighting how limited the alternatives are.



The Forestry Department is now waiting for the green light from the Tender Board so that negotiations can begin with the one company that showed interest during the process of the second tender. In the mean-time, the purchase of two firefighting helicopters is seen as the longer term answer.



ITALY VIGILI DEL FUOCO: A recent

tender document for the provision of maintenance support for the revealed that despite the relatively recent deliveries of ten new Leonardo AW 139s a remarkable number of the legacy fleet remain on strength.

The oldest airframes, now around 40 years are nine examples of the Agusta-Bell AB.206. (VF-18 / 21 / 22 / 23 / 24 / 25 / 26 / 27 / 28), the earliest examples of fifteen Agusta-Bell AB.412 (VF-50 / 51 / 52 / 53 / 54 / 55 / 57 / 114 / 115 / 116 / 118 /119 /



120 / 121 / 123) date from the late 1980s, eighteen AB.412EP (VF-58 / 59 / 60 / 61 / 62 / 63 / 65 / 66 / 67 /68 / 69 / 70 / 71 / 72 / 124 / 125 / 126 / 127). In addition, four AW.109E (VF-80 / 81 / 82 / 84) and a single AW.109S (VF-83) are listed.

Ed: It tends to put the obsession of some operations with acquiring and keeping new airframes in context. If you are operating 20 hardworking airframes over a given area maintenance availability and capability becomes far more important than if you have a fleet of over fifty less intensively used.

JAPAN

Japan Aerospace Corporation (JAC) and Kawasaki Heavy Industries (KHI) have signed an agreement with DART Aerospace to design and certify a fire attack® system for the new five-bladed H145//BK117D-3.

The partnership was instigated by DART representative JAC to market a fire attack® system for the H145 helicopter in Japan. KHI, who will assemble the new five-bladed H145 in Japan, is partnering with JAC to help test, certify and install the tank with DART on the H145.

The system will reflect DART's proven Model 311GII system, designed for the EC145/Kawasaki BK117C-2 helicopter. The lightweight, belly-mounted Model 311GII Fire Attack System features a 240-gallon (912-litre) main tank and 14-gallon (53-litre) foam tank, a 10-foot-long, five-inch hover pump with a 450 gallon (1,703 litre) per minute pump flow rate, and the ability to deliver multiple drops with one tank load.

FAA certification for the H145 Fire Attack® System is expected by the end of 2022 with Japanese JCAB certification following afterward.

SPAIN

There has been significant European Tender activity in recent weeks as contracts are assigned. Consejería de Presidencia, Justicia e Interior in Madrid has let a number of multi-million Euro firefighting and air observation contracts to Sky Helicopteros SA. based in Majorca, Eliance Helicopter Global Services SL at Madrid and Pegasus Aviacion SA in Cordoba.

Spain has been a significant user of the Kamov Ka-32 in the firefighting role and the type has now had its EASA certification removed.

UNITED STATES

CALIFORNIA: The Lake Tahoe Basin has no helicopters or aerial support dedicated to firefighting. Tahoe Douglas Fire Chief Scott Lindgren is hoping to change that.

Chief Lindgren is trying to raise \$60M to launch an emergency response fire helicopter station in his district, which could provide an immediate response to wildfire and rescue emergencies. "We can't wait for that air support to come from another area, we need it here - ready to respond all the time."

The helicopters that battled local fires last summer were contract aircrafts that came from all over the U.S. and parts of Canada, waiting for these aircraft delayed their response to the fires.

The fire district was brought a few hundred thousand dollars closer to their goal after two real estate developers teamed up in support of the efforts. Since the fundraising started, Tahoe Douglas fire has raised \$500,000 but Chief Lindgren said they need more help.

San Diego

Last month the San Diego County Board of Supervisors voted unanimously to purchase a twin-engine helicopter to help battle wildfires. The supervisors' decision will allow the Department of Purchasing and Contracting director to negotiate a fair price for a Subaru Bell 412 EPX Helicopter estimated to cost \$16M. (see cover image this issue).

The county's current fleet of single-engine helicopters based mainly of Bell single engine types dating from the 1960s and 1970s cannot fly at night or carry as much water, but a new twin-engine helicopter will address those issues.

SEARCH & RESCUE AUSTRALIA

QUEENSLAND: Last month the Queensland Government issued a request for an Expressions of interest (EOI) for the supply of emergency helicopter services.

The evaluation process for the procurement of emergency helicopter services for the Torres Strait and Northern Cape York Peninsula will involve a two-stage approach including open market EOI followed by a selective Invitation to Offer (ITO).

EUROPE

MIGRATION: The first quarter of this year was the busiest in terms of illegal border crossings at the EU's external borders since the migratory crisis in 2016. Refugees fleeing Ukraine and entering the EU through border crossing points are not part of the figures of illegal entries detected. Preliminary calculations by Frontex show that more than 40 300* illegal crossings were detected between January and March of 2022, 57% more than a year ago.

The Western Balkan route accounted for nearly half of all the illegal border crossings in the first three months of this year. The total figure for the January-March period was up 115%, having more than doubled to over 18 300. The main nationalities detected were Syrian and Afghani.

The Eastern Mediterranean route saw the number of arrivals of irregular migrants more than doubled in the January-March period to more than 7,000. The main nationalities detected were Nigerians and Congolese.

The number of detections on the Western African route rose 70% in the first quarter to around 5 850, even though the total for the month of March alone fell by two-thirds compared to a year ago to some 360. The main nationalities detected were Moroccan and Guinean.

In the first quarter, the Eastern Land Border saw the largest increase among the migratory routes. This was due to some Ukrainian citizens seeking to cross the border illegally between border crossing points, although a vast majority of Ukrainians arrived legally through regular border crossing points. The total number of detections rose seven-fold.

The number of irregular migrants seeking to cross the English Channel/La Manche towards the UK so far this year nearly tripled from a year ago to more than nearly 8,900, half of them were stopped departing and half were rescued by British authorities, effectively making it to England. Land patrols and aerial surveillance activities detected 55% of departures and these assets working together are key factors that enable the early detection and prevention of many sea crossings.

Britain launched a new strategy in facing its problem last month. It was proposed that single young men making the journey across the water from Calais would be put on aircraft and sent with one-way tickets to Rwanda in Africa (at which point most people were hitting their search engines to see where that country was) to be resettled. There was a furor from opposition politicians and the civil servants who might be expected to undertake the task. Conversely it seems that the proposal surprised at least some of the would be cross-channel migrants – they say they will remain in France rather than get transported to Rwanda.

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Interviews in Britain with some recent arrivals suggest that some are far from destitute in France, some getting decent jobs to fund their crossings and that they are giving up those jobs for an opportunity to make the crossing.

There remains the big issue though of whether they will get dissenting young men in a plane to Rwanda. In the past there have been many difficulties getting proven criminals deported when using airliners. Wellmeaning on lookers habitually make it impossible to fly them out. If it is to be seen as a solution it is going to have to be undertaken a few times and probably using military aircraft. As the rendition flights from Afghanistan repeatedly proved, in the USA they would not face similar problems they simply place them in orange suits and shackle them in chains whether proven criminals or US citizens and fly them. That is not a scenario that any part of the UK is going to be happy with.

Even more recent reports suggest that the numbers of crossing of the English Channel have inexplicable fallen.

CARIBBEAN: As reported in PAN last month, the Caribbean Coast Guard has signed contracts for new air assets. Last month the report was about the fixed wing element further details have now emerged. In addition to the Dash-8 patrol aircraft there will be SAR helicopters.

In recent years, a lot of work has been done on new equipment for aerial reconnaissance, search, and rescue. The contract for the Dash-8 patrol aircraft is signed with the Canadian company PAL Aerospace Ltd and the Dutch Jet Support B.V. The two new SAR helicopters will be supplied by British company Bristow Helicopters Limited.



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The new helicopters are expected to be delivered in the course of next year. They are already in use but will be modernised to a new specification before the start of the new contract.

INDIA

COAST GUARD: In a major boost to India's Maritime Security, at the end of March two indigenously designed and manufactured Dhruv Advanced Light Helicopter (ALH) Mk III were formally welcomed at the Indian Coast Guard Air Enclave in Kochi. They will mainly serve along the coast of Kerala, Karnataka and around Lakshadweep.

This will complete the unit entitlement of four ALH. Both the aircraft will be inducted into 845 Squadron (Coast Guard) under the administrative and operational control of Coast Guard Air Enclave. The helicopters are fitted with modern surveillance radar and electro-optical equipment, which enable them to undertake the role of maritime reconnaissance and Long-Range Search and Rescue.

UNITED KINGDOM

ENGLISH CHANNEL: Technology and the Royal Navy has swept into the Migrant crossing area in southern England.

Boris Johnson, the Prime Minister, and other government officials were present at a briefing at Lydd Airport the usual base of the Tekever drones operating for the border protection agencies. The technology on view included the Tekever drones but in addition there was the Coast Guard Bristow Schiebel drone last reported in North Wales, Coastguard AW189 helicopters normally based at Lee-on -Solent and fixed wing normally based at Doncaster.







To add to the mix was a Leonardo Wildcat, a type not previously encountered in migrant work.

As reported earlier, the number of migrant voyages fell late in April without anyclear indication why.



UNITED STATES

HAWAII: After many years of operating single engine MD520 helicopters, the Honolulu Fire Department is asking the City Council for funds to purchase a new twin-engine helicopter at a cost of \$12M.

HFD is promoting the aircraft as larger, having more power and a capability of carrying patients inside the cabin. Current aircraft are so small that they are obliged to carry the injured in long line litters underslung from the fuselage and usually with the patient unaccompanied.

Although no aircraft type was specifically mentioned You tube footage online shows a leaflet for the MD902 being carried by Chief Robert Thurston proffered as an illustration of a typical candidate airframe. It is hope the proposal will be discussed on May 10.



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INDUSTRY

Diamond Aircraft's Special Mission Division recently signed a purchase contract with 2Excel Aviation, a UK aviation services business, for two DA62 MPP Special Mission Aircraft.

2Excel's customer base includes Government Departments, Oil Industries, Airlines, and Airline Brokers. 2Excel delivers innovative solutions to complex aviation challenges, including cutting-edge Capability Development, Special Missions, Charter, and Large Aircraft Maintenance.

Arnie Palmer, 2Excel Aviation's Director of Special Missions, said: "We are acquiring these fantastic DA62s to bolster our fleet of special missions' aircraft to service our rapidly growing customer base. The aircraft will make our operations even more efficient by reducing operating and maintenance costs. They will also help us to reduce our emissions in line with our ambitious carbon reduction plan."

The DA62-MPP is the latest variant of Diamond Aircraft's successful Special Mission Aircraft portfolio. The all-carbon-fibre, twin-engine aircraft is equipped with a state-of-the-art glass cockpit and a fully integrated autopilot. It is powered by two 180HP turbo charged AE330 jet-fuel engines from Austro Engine (a sister company of Diamond Aircraft) which enable the aircraft to stay airborne for up to eight hours due to their superb fuel efficiency. The carbon fibre material provides for unlimited airframe life and is not subject to corrosion, even when operated in saline and humid environments. Together, fuel efficiency and the unlimited airframe life combine for extremely low direct operating costs, making the DA62 MPP the most cost-efficient Special Mission Aircraft in its class.

Delivery of the brand-new DA62 MPP's to 2Excel is planned for 2023.

Ed: There is nothing in the press release that makes the link, but the timing may suggest that these airframes might be somehow lined up for 2Excel's future fixed wing role for the new UK SAR contract – replacing the more expensive to operate King Air and Navajo.

Early in April **MD Helicopters, Inc**. based in Mesa, Arizona announced that it has entered into an Asset Purchase Agreement with a creditor consortium led by Bardin Hill and MBIA Insurance Corporation. The Creditor Consortium will acquire nearly all of the Company's assets and provide new capital to strengthen MD's financial position and support the Company's continued ability to manufacture and service its helicopters. The Company expects to continue its regular course of operations throughout the sale process and will focus on serving its civil and military customers and working with suppliers as normal. As part of the transaction process, the Company filed voluntary petitions for reorganisation under Chapter 11 of the U.S. Bankruptcy Code in Wilmington, Delaware. Doing so provides a forum that will allow for a quick and orderly sale of the Company, with the Creditor Consortium serving as the "stalking horse bidder" in a court-supervised sale process. Accordingly, the proposed transaction with the Creditor Consortium is subject to higher or otherwise better offers, court approval and other customary conditions.

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Ed: Ah MD, one of the major highlights of the past 25 years of writing on police aviation. If they were not coming, they were going, if they had trouble with a project they would explain them with such complexity that no-one readily understood them and in an apparent attempt to seal the deal they would threaten would be authors with the most dire retribution if the story was revealed. On one notable occasion the CEO of MD sought to publicly humiliate a highly respected US magazine writer at the HAI Heli-Expo. It went badly. At least you could say they were not boring.

They have had some great products in their time and the Apache tank-buster is the shining example that Boeing snapped up for itself but they have largely been squandered through a lack of finance and truth telling and I see that the latest move involves money so it may not be a happy future. We will have to see how the truth telling goes – most recent evidence has not been too promising. A source tells me that one of their more recent, and now rare, civil police contracts promised delivery dates that have not been met and look likely to slip months.

You can blame it on a poor upbringing of course, history has not been kind to MD. Born out of Howard Hughes Tool Company, they produced some classic helicopters that served the military and the police well from around the time of the Vietnam War. Bear in mind that war finished 50 years ago.

Thanks in part of multiple owners and suitors since 1984 (McDonnell-Douglas, Boeing, Bell, MDHI/RDM and Patriarch Partners) the aircraft the company was charged with looking after were the least of the talking point. The once great aircraft simply became mired in the history they were creating and did not progress. At times it seemed they spent more money on image makeovers and strap lines than getting the product right for the customer. Today the main product is a variation on the Vietnam War OH-6/369/500 and despite the sales talk no amount of tinkering can modernise it.

There was a product of hope and that was launched into what became muddy waters as the MDX. It entered the scene in 1992 and showed great promise as the MD900. In that year they had orders for 200 but they never built that many in the following three decades.

It was leading edge and well ahead of the pack – unfortunately they must have read the wrong instructions



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AS9100 - EASA Part 21.G and 21.0 - EASA Part 145 - UK MOD DAOS Approved - FAA Repair Station

and they had to rebuild it to meet the strict requirements of JAR27 to produce the MD902. They were not alone, fellow American company Bell made exactly the mistake with their Model 427 and also had to go back to basics. It cost both time and precious resources.

Meanwhile the Europeans, running two years behind the Explorer with their EC135, caught up. All the aircraft had their share of troubles, but it turned out that the Europeans still had the budget to tackle theirs and overcame them. MD were faced with issues that were solvable but were underfinanced due to the unexpected rebuild and the ongoing unsettled management structure. The Explorer never recovered and has not been actively marketed for some years now.

One day, perhaps when MD has finally gone, someone will write the book, meanwhile the self-induced pain apparently continues.

On a more positive note the second example of the new production **Schweizer S300C** has flown. The airframe was originally the Hughes 269/300, an airframe upon which much of police aviation was first launched. It was sold off to Schweizer in 1986 who successfully carried on producing it as the 300 for many years, a number of small forces used the type as a trusted general patrol helicopter although it was mainly restricted to VFR. The company unwisely sold out to Sikorsky in 2004 and the simple but fool proof trainer 300 found itself discarded until new owners, Schweizer RSG, restarted production.



A lawsuit brought by the **Association of Air Medical Services** (AAMS) over the implementation of the No Surprises Act has deeply divided the U.S. air medical industry, with some hospital-based providers claiming that AAMS has jeopardized their operations by prioritizing the interests of independent providers. Metro Aviation — which operates 155 aircraft for 39 traditional air medical customers — withdrew from AAMS in February after being supporters for nearly 35 years.

At issue is AAMS's position that hospital-based and independent air ambulance services should be considered separately for purposes of calculating the qualifying payment amount (QPA), defined in the No Surprises Act as the median of the contracted rates that a health insurance plan or issuer pays for a service. Congress passed the No Surprises Act in late 2020 to prohibit most healthcare providers — including air ambulance providers — from billing patients for services not fully covered by their insurers because the providers were out of network. The air ambulance industry had become notorious for such surprise "balance bills," with the highest charges associated with independent providers such as Air Methods and Global Medical Response, which are owned by private equity firms.

Editor: It all stems from complex arguments about a long standing problems of what the customer patient is being charged for service in the USA if they are away from their home helicopters service. The argument has been going on a long while and it appears that the remedy for the problem crafted by politicians and law makers – the No Surprises Act – has not resolved the problem.

Five potential buyers for Piaggio Aerospace have been given permission to conduct due diligence on the



Italian manufacturer as the latest sale process gathers momentum.

Commissioner Vincenzo Nicastro – who has been running the company since 2018 – says that although eleven companies expressed an initial interest in the airframer, only five have been granted access to its data room.

Would-be buyers had until April 28 to conclude the process, triggering a 30-day period during which offers need to be submitted.

Villanova d'Albenga-based Piaggio has been in extraordinary administration since December 2018 after its previous owner, Abu Dhabi sovereign wealth fund Mubadala, pulled out.

The European Union's (EU) European Border and Coast Guard Agency, better known as **Frontex**, has its work cut out. Tasked with patrolling the EU's Schengen Area of 26 countries, which have abolished all border controls, one of its missions is to patrol the Mediterranean. Refugees from North Africa regularly use this route to flee poverty-stricken and war-torn countries for a life in Europe.

Frontex says that in January 2022 alone 637 people from Algeria, Cameroon, Morocco, Mali and Syria crossed the western Mediterranean route. And 2,150 people from Bangladesh, Cote d'Ivoire, Egypt, Eritrea and Tunisia crossed via the central route. A further 1,162 arrived from the Democratic Republic of Congo, Nigeria, Pakistan, Somalia and Syria using other routes.

Statistics say that since 2015 over 20,000 people have died or are missing as a result of attempts to reach the EU by sea.

EU member states makes assets available to assist Frontex work, these include ships as well as aircraft and are supplied by a mix of government agencies including border guard, National Guard, police and coastguard agencies. It does have its own airframes including a single Israel Aerospace Industries Heron-1 UAS, several Diamond DA-42 and DA-62 twins and a single Beechcraft Super King Air-350 twin turboprop. The three manned aircraft are owned and operated by DEA Aviation at Retford UK but chartered by Frontex.

Detecting the migrant craft is aided by eavesdropping on the signals of mobile phone and satellite communications (SATCOM) signals and many of the migrant smugglers are aware of this and use it in their favour by alerting the authorities and using them to rescue craft long before they arrive at the intended destination.

Horizon Technologies' SIGINT systems are now heading into space. On December 21 last year, Virgin Orbit announced a partnership with the company with the former becoming Horizon's preferred launch partner. The company has developed a constellation of CubeSats which will gather maritime SIGINT. CubeSats are miniature satellites with a mass not exceeding 1.3 kilograms. Horizon's Amber constellation of satellites will have SIGINT payloads detecting an array of emissions including radar signals from maritime navigation radars.

In recent years, some vessel operators have been known to falsify their AIS data. The Global Fishing Watch maritime sustainability advocacy group has diligently tracked examples of what is known as AIS spoofing. The reasons for deliberately falsifying AIS transmissions are varied, but they boil down to a desire to show that a vessel is in a different location to where it actually is. This maybe to conceal the ship's involvement in illegal fishing or in sanctions busting. AIS data may lie. However, there is no way that the source of the transmission can be falsified. The Amber satellites will be able to cross correlate the reported AIS data with the actual source of the transmission. [taken from a longer article originally appeared in Naval Forces 29/03/22 by Dr. Thomas withington].

New research states that **England and Wales** have fewer police officers per head of population than any comparable European country.

The Social Market Foundation said that the relative lack of police personnel was contributing to falling public confidence in law and order in England and a failure to tackle growing forms of crime such as fraud. The SMF, a cross-party think-tank, calculated that England and Wales now have 228 police officers per 100,000 people.

France has 332. Germany has 298. The average across 32 European nations was 357. Scotland has 316. Australia is the closest nation to English policing levels with 274 officers per 100,000 people.

The 2021 financial year was extremely successful for **Pilatus**, but also challenging. Despite the difficult circumstances, a new production record of 152 aircraft deliveries was set. Sales of 1.3 billion Swiss francs, an operating result of 210 million and incoming orders worth 1.7 billion francs are a very good result. The Board of Directors also underwent a change and a reinforcement.

Pilatus achieved growth in sales of 19% and a 35% higher operating result compared to the previous year. The total number of aircraft delivered is impressive: 45 PC-24s, 88 PC-12 NGXs, 17 PC-21s and 2 PC-6s, 152 aircraft all in all.

Bristow Group Inc., has signed a Memorandum of Understanding (MOU) with Helicentre Aviation Ltd, the UK's leading helicopter training academy, to serve as its preferred provider of ab-initio commercial pilot training.

Under the MOU, through this collaborative initiative, Bristow will support Helicentre with the promotion of future pilot career events, actively support the development and mentoring of future aviators and engage with those training to become helicopter pilots at the early stage of their career. In return Helicentre will be Bristow's preferred provider of ab-initio pilot training and recruitment in the UK, supporting the sponsored programmes run by Bristow.



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Cadets will have access to Bristow's flight ops team, which support both commercial air transport and search and rescue activities, with the ability to visit live operations.

Helicentre has and continues to support Bristow as the selected partner for its sponsored UK cadet programme. The programme provides fully funded training, from ab-initio to commercial pilot on an Integrated CPL(H) course. Bristow also funds training for a multiengine instrument rating under its UK cadet programme. The UK sponsored programme selects a number of candidates annually, with over a thousand applications being received for the most recent course that is currently underway.

Upon completion of their initial pilot training, pilots undergo further training with Bristow's operational fleet. This specialised training is normally completed at Bristow's training facility in Dyce, Aberdeen, which is the only facility of its kind in the UK.

Helicentre Aviation will be hosting three Careers Days in May with industry partner Bristow Helicopters. The careers days which will be held on the 15th, 16th and 17th May at its Leicester Airport base, are the first in-person careers events the Academy will have hosted on-site since the pandemic. Senior personnel from Bristow will be present, speaking to both prospective future aviators and existing pilots, enabling them to explore pathways into rotary flying careers.

There is an ever increasing shortage of suitably qualified helicopter pilots across the industry, and a lack of awareness surrounding the pathways into helicopter careers, despite the training sponsorships and scholarship initiatives both companies have invested heavily in for many years. To apply for a place please visit flyheli.uk/careers-

On numerous instances in the past members of the airborne emergency services were able to roam the world seeking first hand information operational aviation and were able to visit airborne law enforcement operations, the Civil Air Patrol and similar volunteer organisations to enhance their knowledge. This activity was part financed by Churchill Fellowships. These face-to-face wanderings were necessarily halted in the face of the Covid pandemic.

Last month it was announced that on September 13 the organisation will be open again to consider applications for **Churchill Fellowships** for projects in 2023.

A Churchill Fellowship is a once-in-a-lifetime opportunity to lead the change individuals want to see. They fund the spending of two months meeting innovators in their field anywhere in the world, in person or online. In return they are supposed to create a report available to all – usually via the website. Churchill Fellowships are open to all UK adult citizens, regardless of background, qualifications or age. They seek people with passion and potential to make a real difference, from every part of society and normally select up to 150 new Fellows every year. They look for projects that will tackle practical problems in UK society, based on successful innovations and best practice from overseas.

The Churchill Fellowship and the world at large have moved on and last year they were at the centre of a cancel; culture modification – they now display the image of Winston Churchill far less prominently than they used to – the former Winston Churchill Memorial Trust is now calling itself The Churchill Fellowship. Few of the topics immediately suggest links to aviation but there remains a potentially all embracing Science and Technology,



"We are thrilled to be reopening for applications for Churchill Fellowships," said Chief Executive Julia Weston. "After a two year pause for the pandemic, we look forward to welcoming applications from any UK citizen with a vision for change in their community or profession."

www.churchillfellowship.org

Editor: Past readers will have noted individuals that have had the opportunity to make use of these Fellowships and submitted the subsequent report. They are not all logged but in April 1997 Victoria Police Air Wing pilot, and PAN reader, Senior Constable Tim Morgan, was awarded a "Winston Churchill Memorial Fellowship" to undertake a three month world study of thermal imaging and night vision systems for law enforcement and search and rescue aircraft. By late 1999 he had made the journey – spread over five months - and visited a number of air units including some in Britain, Germany and the USA. Several items

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fed through into the PAN readership but the report is not available.

Former UEO and creator of the Humberside Police ASU (1994-2002) Norman Woollons gained a Churchill January 2000, but I have never seen any subsequent report.

Much closer in time was the award to Tony Cowan in 2009. The name may be familiar! His task was to look into civilian volunteers but along the way he picked up information on the US Government supplying ultra-light aircraft and autogyros to smaller law enforcement air units. The report, reflecting some of the reasons why he still believes in light aircraft assisting in the police task, is still on the website.

Adams Aviation Supply Co Ltd based in Crawley south of London will be exhibiting at the forthcoming PAvCon Europe. The company represents a range of manufacturers across Europe including Dunlop Tyres whose founder invented the pneumatic tyre, Dunlop's products are designed and built to be strong and reliable. With Tyres working on the most demanding commercial and military aircraft worldwide, that same quality and durability is available to General and Business Aircraft operators through Adams Aviation.

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Developing Assets (UK) which trades as **HeliOperations** has won a Queen's Award for Enterprise for International Trade for Outstanding Short-Term Growth in overseas sales.

HeliOperations is one of 225 UK organisations to receive a prestigious Queen's Award for Enterprise which recognizes exceptional short-term growth in overseas sales during the last three years. HeliOperations is based at The Heliport, Osprey Quay, Portland, Dorset, delivering helicopter training and other aviation related services. Since purchasing the Portland site in 2017, HeliOperations has become a leading provider of training, with a primary focus on Search and Rescue operating the iconic Sea King helicopter. The Company has grown its workforce from just two employees to around 50 staff inside five years, providing employment in high technology trades and contributing considerably to the local economy. Additional facilities have been established in Cornwall where it operates a simulator with additional maintenance and storage facilities at Somerton in Somerset. A growing portfolio of international customers includes the German and Pakistan Navies, the Royal Norwegian and Bangladesh Air Forces plus the UK's Empire Test Pilots' School HeliOperations. Its rapidly established status as a key player within the aviation training sector is expected to expand significantly over the coming years. The recent approval for the development of an additional building at its Portland base has further demonstrated HeliOperations long-term commitment to the area.



ACCIDENTS AND INCIDENTS

8 April 2022 Sikorsky S-92 South Korea Coast Guard two Coast Guard officials were killed in a helicopter crash. Four people were aboard the Sikorsky S-92 helicopter when it went down in waters 370 km southwest of Mara Island

The crash happened shortly after the helicopter took off to return to Busan after dropping off six Coast Guard rescuers on the patrol boat that was on its way to help with rescue operations for crew members missing from a boat in waters near Taiwan.

The crew were co-pilot, Chung, 51, a vessel radar operator, Hwang, 28, were killed, a mechanic, surnamed Cha, 42, were missing. The pilot, surnamed Choi, 47, was rescued by a nearby Coast Guard patrol boat.

11 April 2022 helicopter Indian military

12 April 2022 helicopter Indian Military

On 10 April two overloaded cable cars malfunctioned and collided at Deoghar, in Jharkhand Province India. Operations carried out by the Indian Air Force, Army, Indo-Tibetan Border Police and National Disaster Response Force saw the rescue of more than 40 people. The subsequent aerial rescue attempts by Indian Air Force personnel covered a period of some 45 hours and included supplying those stranded in the cable cars with water and lifting them out of the cars to the ground. During the rescue phase two people a man and a woman were seen to fall to their deaths. The man was seen to make it to the door of the hovering helicopter but fell at the last moment. The woman fell to her death while dangling from a rope. Ed: Only the unclear images of news reports provide the story of the rescues. The helicopters involved appear to be a winch equipped Hindustan ALH and a Mil 17. In each case it appears the victims were unsecured and holding on to a line rather than a cage or strop accompanied by a rescuing member of the crew.

13 April 2022 Basler BT-67 Turbo 67 PNC0257. Servicio Aereobde Policia. The Basler BT-67 turbine conversion of a wartime [1943] Douglas DC-3/C-47 crashed during a failed landing at Villavicencio-La Vanguardia Airport. A video of the accident shows that the aircraft veered off the left side of runway 23. The aircraft continued on the grass. After passing abeam the runway end, the pilot then appears to pull up the aircraft to clear some trees, after which the aircraft banked left and fell into an area of trees and shrubs. The aircraft sustained substantial damage to the nose, wings and undercarriage. Of 14 aboard no -one was reported injured.

16 April 2022 Robinson R44 Police ZS-RKH. South African Police. Caught in flood waters in Durban, South Africa. No apparent serious damage but under fuselage FLIR turret part immersed in dirty flood waters. [media]

26 April 2022 Bell 429 GlobalRanger N507TJ Air ambulance on training flight. Mercy Flight (Mercy Flight 7) helicopter took off from the Batavia-Genesee County Airport, NY for a training flight with two pilots aboard. After around one hour the helicopter crashed alongside Norton Road, a public road at Elba, Genesee County NY north of the airport, killing both occupants. The pilot was James E. Sauer, 60, of Church-ville. He was a retired New York State police pilot who began working with Mercy Flight in October 2020. The second fatality was Stewart M. Dietrick, 60 of Prosper, Texas, he was described as a Bell Helicopter flight instructor. [Media]

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SAFETY

The Air Accidents Investigation Branch has published a 15-page report into an investigation into an accident involving DJI Matrice M210 Version 1 quadcopter which occurred on 19 November 2020, Poole in Dorset

A quadcopter unmanned aircraft (UA) was being flown during a police operation when the wind at 400 ft exceeded the forecast wind, the manufacturer's wind limit and the maximum restricted speed of the UA. The UA drifted beyond visual line of sight and then communication with it was lost. When the battery level was low it entered an auto-land mode but collided with the wall of a house, damaging its propeller blades before coming to rest on a balcony.

The investigation revealed that shortly after takeoff one of the UA's two batteries had disconnected which resulted in its maximum speed being restricted, but this restriction is not referenced in the user manual and neither the remote pilot nor operator were aware of it. When the UA detected that the manufacturer's wind limit had been exceeded, the message triggered on the pilot's controller display was 'Fly with caution, strong wind' instead of advising the pilot that the limit had been exceeded and that the UA should be landed as soon as possible.

Three Safety Recommendations are made to the UAS manufacturer and one to the CAA on Visual Line of Sight guidance

UNMANNED

In the United Kingdom the Department for Transport's (DfT) Drone Pathfinder Catalyst programme has completed this year's aims and objectives in that it has accelerated commercial drone adoption, an understanding of the public acceptance of drones and solved technological challenges through Drones Transport Research and Innovation Grants (TRIG: Drones)

Since launching in 2018, the Drone Pathfinder Catalyst programme has provided a transition for the UK from drone trialling to application. The programme focused on what can be done within today's regulation and technology, demonstrating the benefits to different industry sectors while addressing the challenges and approaches to safety. This included giving evidence to deliver safe, secure, and sustainable drone flight, through working with:

Network Rail to demonstrate how drones minimise the risk of trackside working and reduce network outages

Yorkshire Housing to demonstrate how drones can reduce the overall cost of planned and preventative maintenance

Buxton Mountain Rescue to demonstrate how drones designed for inclement weather can save lives in search and rescue operations

The Environment Agency to understand how drones can monitor the UK's changing coastlines that are increasingly under threat due to climate change

AGRI-EPI and a broad range of stakeholders to demonstrate how drones can increase farming yield and reduce the use of fertilisers and pesticides through more targeted application

Herotech8 to demonstrate how drone in a box solution can deliver greater efficiencies and unlock new applications through increased automation

The programme saw collaboration with public, private and industry organisations who were able to engage with key authorities such as the Civil Aviation Authority (CAA), the Department for Business, Energy, and Industrial Strategy (BEIS) and UK Research and Innovation (UKRI).

The Pathfinder also enabled six SMEs to deliver early-stage research and development studies to examine the integration of drones into UK airspace.

In addition to the 180 ccm SP-180 SRE Wankel engine previously offered, German UAS engine manufacturer Sky Power International now offers two more powerful multi-rotor Wankel engines, the SP-360 DRE and the SP-540 TRE.

"Both the SP-360 DRE and the SP-540 TRE are based on the established concept like the SP-180 SRE," explains Karsten Schudt, managing director of Sky Power International. The two engines have displacements of 360 ccm and 540 ccm, respectively. Doubling and tripling the displacement also increases the power output of the engines. The SP-360 TRE is a twin-disc Wankel engine with up to 51 hp at 6000 rpm. The SP-540 TRE, on the other hand, is a three-disc Wankel engine. This produces 74 hp at 6000 rpm as well. The weight, without additional modules, is 15.5 and 21 kg respectively.

As with the SP-180 SRE, the two new Wankel engines are equipped with two independent cooling sys-



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tems. This is a basic requirement for a propulsion system in aerospace applications, where continuous performance is a prerequisite. Thermal stability is essential, which can be ensured by the cooling concept. Both the SP-360 DRE and the SP-540 TRE, like the smaller SP-180 SRE, can be used with a combination of electric and mechanical drive. In the case of electric power only, an on-board battery is required as the Wankel engine generates power by means of the generator system. This electrical power can also be used as the primary drive. But a hybrid boost mode can also be used, in which the mechanical and electric drive can be combined for maximum power. Thanks to this integrated hybrid technolo-



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gy, a redundancy function is available to enable a controlled emergency landing in the event of a critical scenario.

Sky Power International's Wankel engines are exceptionally lightweight as a propulsion system and require a smaller installation space than comparable two-stroke engines. Minimal radial or torsional vibration makes this engine particularly attractive when high-power optics or sensors are used in UAVs. The ability to mount these motors vertically at 90 degrees increases flexibility and is suitable for helicopter applications. "We are pleased that we can now meet high power requirements with the extended Wankel motor family," Schudt continues.

Walgreens, a US pharmacy chain, will be working with Alphabet's (Google's parent company) subsidiary, Wing, to launch drone delivery services in the first major U.S. city.



The service, which is initially launching in the Dallas Fort Worth (DFW) metroplex, is meant to be a pilot, as the company eventually hopes to expand drone delivery to other cities. The entire process has been systematically designed to enable customers to order via Wing's mobile app. Walgreens staff will then locate and prepare the order for attachment to delivery drones.

The staff having previously attended training validated by the FAA, will attach the packages to drones waiting on charging pads outside the building (in the parking lot). Once attached, Wing associates oversee delivery to doorsteps, backyards or whatever preferred location customers choose at their home. Walgreens' mission is to create the most convenience for its customers as possible. Drones will allow goods to be delivered to customers faster than the existing options of collect or delivery by third party vendors.

The trial was launched from Simpson Plaza, in the metroplex – an area taking in Dallas, Fort Worth and Arlington, Texas, some eleven counties in all with a population of 7.6 million.

The first two "recipients," and as might be expected local notables in the form of the mayors of Frisco and Little Elm. They input their order into Wing's app and, minutes later, the drone arrives and safely lowers the package to its recipients. The products are of course not prescription drugs, just an allergy medicine and some vitamin C gums. Nice and safe for demonstration purposes and drawn from an initial list of 100

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over-the-counter products.

Wing trialled the system in Australia as long ago as 2014, with other projects in Canberra and Queensland last year. Launching a US trial system was in a more limited trial area of Christiansburg, Virginia (population 21,000) last October with the ultimate goal of delivering more things to people all over the world and meaning that the scheme would mean operating beyond small towns. From being a novelty the service in Virginia was boosted by the Covid lockdown into an acceptable and useful service. DFW is another small step.

Tekever, the leading drone-based maritime surveillance provider in Europe, has announced a strategic investment and partnership with Scorpio Investment Holding Ltd, one of the world's most storied and established maritime businesses. Scorpio's investment is part of €20M recently raised by Tekever, that the company will use to accelerate its global expansion. It represents an important step towards bringing the company's technology and services to the Commercial Shipping market.

The two companies have complementary know-how and will together develop space and drone-based services that can contribute towards safer, greener and more efficient operations in the Commercial Shipping and Offshore Wind markets.

Tekever builds multiple types of drones, capable of flying up to 20 hours continuously while carrying sensors, including cameras, radars or cellphone detectors. The drones are built around an AI-centric platform that combines Edge AI, satellite communications and cloud computing to provide customers with real time information and advanced analytics over simple to use and globally accessible web and mobile interfaces. The European Maritime Safety Agency (EMSA) and the United Kingdom's Home Office were among the first governments, major agencies and global companies to adopt the drone-based intelligence service to gather real time data across ultra-wide areas and create the intelligence needed to predict and act timely and efficiently to avoid major threats to life, the environment and the economy in maritime context, like Piracy, Drugs and Human Trafficking, Migrant Smuggling, Pollution, Illegal Fishing, and threats to Infrastructure Security.

Tekever launched the new version of its proven AR3 system, now with Hot-Swappable VTOL with integrated Synthetic Aperture Radar capabilities, during AUVSI Xponential in Orlando. With the new upgrade, the AR3 becomes the most operationally flexible UAS in the market, and the smallest UAS to boast a high performance, dual side looking Synthetic Aperture Radar. The new version of the AR3 is a modular & transformable platform. Users no longer have to choose between having pure fixed wing assets for longer endurance missions, or fixed wing VTOL assets for more challenging deployment conditions. The AR3 combines both capabilities and provides users with the ability to decide the configuration shortly before takeoff.

The newly added Synthetic Aperture Radar provides the AR3 with a vastly greater operational range, and the ability to effectively



detect, recognize and identify targets under any weather condition. Covering more than 20.000 square nautical miles per mission, the new AR3 is perfect for wide-area surveillance missions.



The SAR, named GAMASAR in honour of the Portuguese navigator Vasco da Gama, is designed and built by Tekever specifically to provide our customers with capabilities that are typically only available through much larger systems. With an extremely reduced logistics footprint, the unprecedented VTOL flexibility and the unique capabilities provided by GAMASAR, will provide customers with tremendous value and cost effectiveness.

PEOPLE

Carla Ronconi, who has joined Airbus Helicopters in the UK as Senior Sales Manager at their Oxford HQ, was previously Aircraft Sales & Acquisitions Manager at Lider Aviation in Brazil where she worked for more than 10 years. She replaces Bill Long who has moved onto a Ministry of Defence project. She tells PAN: "I'm absolutely delighted to be entering the rotary sector with such a strong product line-up for the police, HEMS and energy markets where I'll be mainly focused. The H135 and the five-blade H145 are obviously very well established with those operators but we're seeing increased interest in the H160 as well. So, I'm enormously looking forward to getting out into the operator community and understanding their needs in more detail." Carla is based at Airbus Helicopters UK Ltd., Oxford Airport, Kidlington OX5 1QZ and can be reached on the e-mail carla.ronconi@airbus.com



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Somewhat less positive at Bell in Texas. In February the industry was talking about around 70 managers being let go. PAN has not seen the list but over the Easter break it became clear that it has been quite a cull of skills.

One of those affected was Carl Crenshaw III. Formerly the Inspector in charge of the Baltimore City Air Support in Maryland. Carl has been with Bell for over 11 years as the key segment specialist in Customer Solutions for the law enforcement sector. I first met him in at a police aviation conference in Kuala Lumpur and eventually he, and Bell, took a major part in the support and promotion of the PAvCon Europe event. No more.

MOVE ALONG THERE

On April 20 US Capitol Police went into 9-11 overdrive and ordered the evacuation of the Capitol complex, saying they were tracking an aircraft that posed a probable threat. It turned out that the viable threat was a DHC Twin Otter being used by an Army parachute team brought in to entertain the people at a Military Appreciation Day nearby. It loitered for some 40 minutes over the area, apparently in contravention of a no-fly zone. Everybody's fault of course – the latest guilty party being the FAA for not telling the Capitol Police about the flight.

As we know there are an awful lot of police agencies in the USA (around 17,000) and there are six agencies with over 4,000 staff in the District of Columbia. As far as is evident five agencies saw a parachutists Twin Otter circling over a park some distance away and three of those agencies saw the end of the world coming again and pressed the panic button.

Last month I commented that India was faced with potential difficulties in its dealings with Russia in the wake of the Ukraine 'Special Operations.' A great deal of their military equipment is based on the output of Russian factories and forward plans envisaged much more cooperation. It has not made them many friends in the west, but some see it as their choice for the moment. Clearly, they are not going to cripple their military capability overnight.

In recent days India cancelled a large military order for Mil Mi-17 helicopters and the British Prime Minister, Boris Johnson, refused to fly in a Russian built machine during a visit last month. They flew in a Chinook to make the journey.

That is some sort of progress.



ZBURG 2022





SALZBURG AUSTRIA JUNE 28-30



8-9 June 2022 ExCeL London

Countering Tomorrow's Threats, Today

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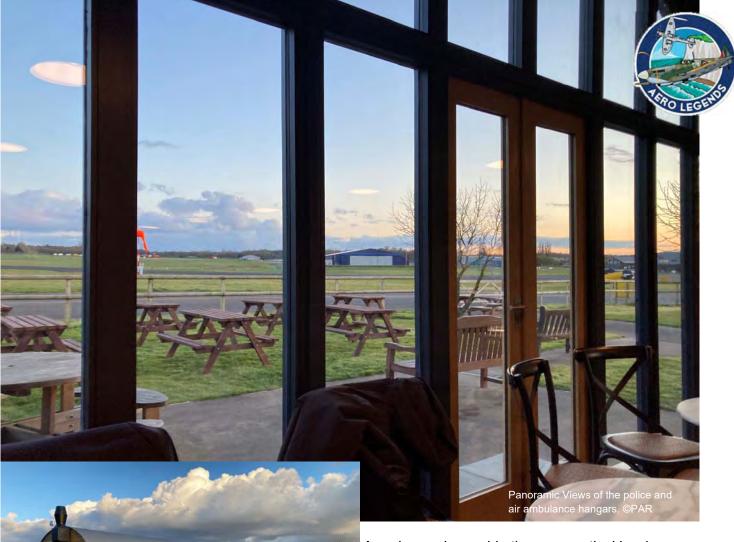
www.policeaviationnews.com Emergency Services First

SUMMER DAYS OUT

As the weather warms and the dual threats of COVID and Putin appear to recede thoughts turn to summer days out. There is a section of society that finds joy in drinking tea and watching aeroplanes do what aeroplanes do.

With that in mind turn your eyes to the undoubted attractions of North Weald Airfield in summer. In recent years there have been cafes on the airfield serving the 'greasy spoon' all day breakfast clientele drawn in the main from aircraft mechanics in their daily task of keeping aircraft in the air on a day-to-day basis.

New to the north side of the airfield is something very different and aimed at a new more sophisticated clientele with slightly different aspirations than turning spanners. The new set are those drawn to the flying of classic aircraft – Harvard's, Tiger Moth's and the ultimate the two-seat Supermarine Spitfire.



Aero Legends provide the aeronautical hardware and Rosey Lea the English Afternoon Tea – and more.

So, if you are taken with the idea of sitting in the sun drinking Earl Grey, Darjeeling or another blend accompanied by toasted teacakes or sandwiches whilst watching the world of aviation go by you need to be at The Squadron this season.

In terms of aviation there is plenty to see on even the dullest of days, it is a busy aviation hub for private flying and business. Laid out in front of the tea rooms is the hangar of the Essex & Herts Air Ambulance with its AW169 and MD902 helicopters, alongside them the giant echoing hangar of the National Police Air Service, recently quieter since the London helicopters departed. Each in their way reacting to emergency needs of the local population.

The Nissen Hut has been completely rebuilt ©PAR

Behind the emergency helicopters are the workshops of some of the busiest vintage and classic aircraft maintainers and restorers in the country. You never know what delight may emerge from the hangar on flight test each day – a 80-year-old fighter, a 70 years old airliner or some stripling youngster of a restored helicopter only 50 years off its first flight.

May 2022

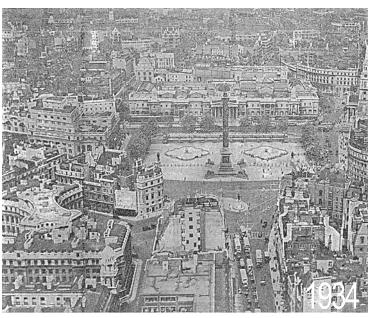
So, if the weather looks fair, North Weald may be the place for your aeronautical fix. Other cafes and menu items are available. I understand that weekends are proving more than a little busy so for the best experience a sunny weekday may be a preferable start!!

Meanwhile on Social Media the London operation (Lippitts Hill to those who have memories) tweeted an recent mage of Trafalgar Square in London and that got me digging in the archives for several similar images from the past.



Above, the 2022 image Tweeted of Trafalgar Square with Whitehall leading off at the bottom.

Below: 1963 and the police had no aircraft, instead they took a ride along when (and if) the Automobile Association Piper Apache was operating over London. Not very often it must be said. Image by Inspector Doughty







Top: Sorry about the quality but it is 1934 and the Metropolitan Police have taken a series of images of London from their Cierva C-30A Autogiro and given them to the Fleet Street press to use. Unfortunately the police lost the negatives and now if they want a copy of the images they took they have to pay a large reproduction and licence fee to the same newspapers they gave them to! Justice it is not.

Above, and back into colour it is 1984 and the marchers have taken over Trafalgar Square in a big way. Image captured by a Metropolitan Police Bell 222.



COMING SOON

The event was a hit with the local TV station in 2013 ©PAR

6-8 June 2022 PAvCon Europe Police Aviation Conference, Austria.

Sponsored by FlySight and Leonardo, the planning and organisation of this event is going well. True there are war clouds way over the horizon that may make some potential visitors nervous about attending, but so far that has merely left them deferring final travel decisions and maybe adding something with armour plate to the hire car options.

The conference programme addresses such as mobile phones being used to find survivors under snow drifts that is appropriate with the backdrop of Austria but of course snow is not now required, this type of technology can find people pretty much everywhere as has been poignantly demonstrated recently in the Ukraine. There will be an air demonstration by the Austrian Police, live outside demonstrations of loud-speakers, items on CRM, back seat crew training, flight safety and accident survival, and how to design your future police aircraft. Currently attendees will be coming across Europe and the USA. As the COVID situation settles we may yet see the return of officers from the Antipodes.

The Exhibition area is filling well, with well over two-thirds of the current target of 40 exhibitors already in place, space is finite, and some may well be obliged to attend without the option to have displays.

The event is free to all airborne emergency services fliers – subject to pre-booking this month and currently includes a significant presence from Denmark, The Netherlands and Estonia.

The funding will as usually come from the 40-45 exhibitors and event sponsors including that generous additional support from the two leading Italian companies

The basic package is UK Pounds £1,300 for and exhibitor space or £350 for individual conference/ exhibitor attendees remains on offer for the rest of this month.

Details of the event are on-line at www.pavconeurope.eu



After losing out for one year registration for arguably the most important aerospace and defence event in the UK over four years, Farnborough International Airshow 2022, is now open.

Taking place 18-22 July 2022, the event will see global aerospace and aviation leaders return to Hampshire, United Kingdom, for five days of unrivalled opportunities to discover the latest pioneering technology and engineering, announce historic partnerships, build connections and work towards the cumulative sustainable aerospace vision as an industry.

New for 2022, the Aerospace Global Forum will revolutionise how the industry will share knowledge and tackle global challenges. Bolstering Farnborough International Airshow's position as the pinnacle aerospace event, the Aerospace Global Forum will see pioneers and innovators from across the worldwide technology, sustainability, engineering, space, and defence spheres convene and immerse themselves in driving accelerated material change through an aerospace lens.

Gareth Rogers, CEO of Farnborough International, said: "With the entire world now focusing on the critical health and sustainability of the planet, we are at the most important junction in the history of aerospace. Without face-to-face opportunities to discuss the opportunities and challenges for the future of aerospace over the last two years.

The event will attract Airbus, Boeing, Boom Supersonic, Lockheed Martin, Rolls-Royce and GE Aviation, exhibiting their latest aircraft, innovations and technology at the show.

For more information on attending or exhibiting, visit the Farnborough International Airshow website,



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